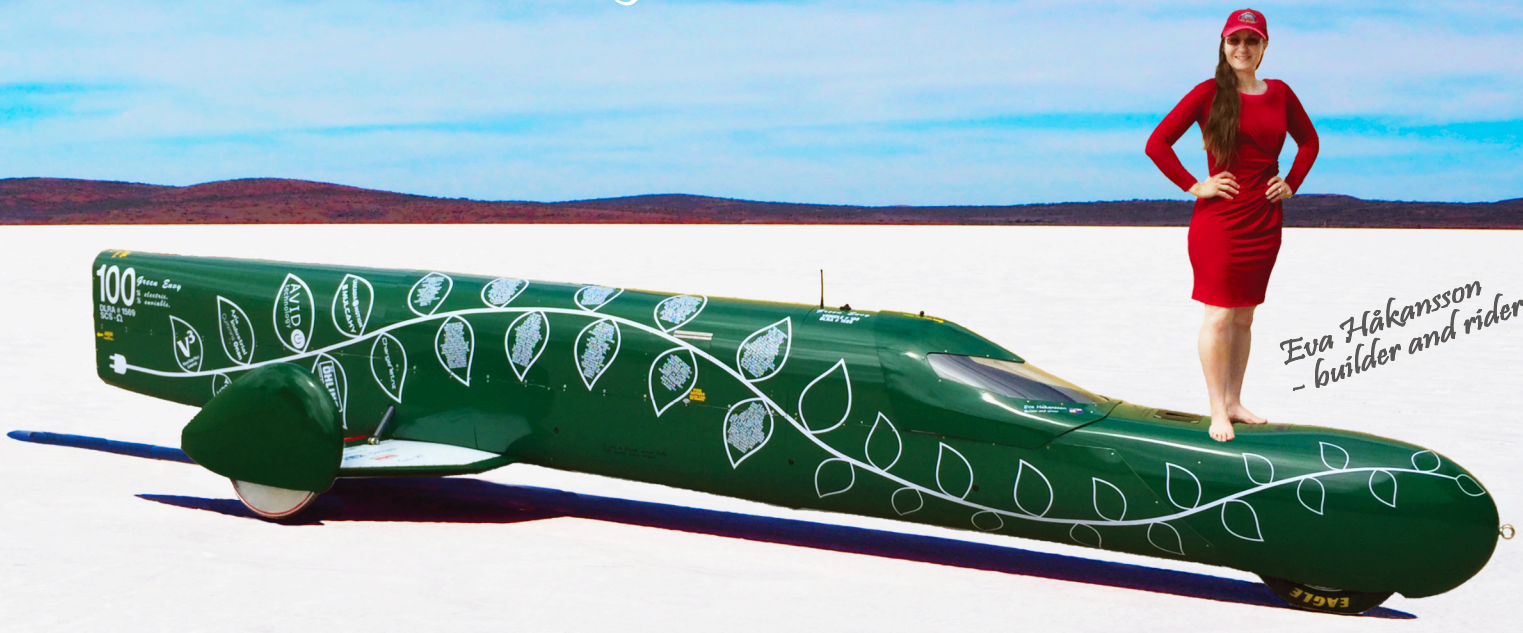
Green Envy

The world's fastest electric motorcycle?



Eva Håkansson
– builder and rider

Petrol?! That's so last century! 434 km/h (270 mph) with batteries!

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Green Envy - aiming for 650 km/h (400 mph) with 1,000 HP! 100 % electric. 100 % enviable.

The KillaJoule (pictured to the right) is the world's fastest electric motorcycle at 434 km/h (270 mph), and a very expensive hobby for the wife-husband team Eva Håkansson and Bill Dubé. The KillaJoule was retired in 2019, and their latest creation - the Green Envy - is shooting for 650 km/h (400 mph) and the overall motorcycle record.

The purpose of the Green Envy is to show that eco-friendly doesn't mean slow and boring. We call it "eco-activism in disguise". Another purpose is to show that STEM (Science Technology Engineering Math) is a lot of fun! The KillaJoule also made Eva officially the world's fastest female motorcycle rider (she recently lost those bragging rights, but working hard to take it back). Eva has a PhD in mechanical engineering, and used to teach CAD (computer aided design) and engineering drawing at university level. She is taking 2020 off to focus on the Green Envy project.

Our awesome volunteer crew consists of Steve Lovell, Quintin Shamrock, Kel Grayson, Matt Pearce, Juan Robertson, Summer Xia, Peter Hopperus, Amy & Sam Elliott, Tom Parker, Tom Bishop, and Frank John.

KillaJoule	vs.	Green Envy
Top speed: 434 km/h (270 mph)		Target speed: 650+ km/h (400 mph)
Power: 400 HP		Power: 1000 HP
Weight: 700 kg (1500 lbs)		Weight: 1200 kg (2600 lbs)
Length: 5.6 m (18.5 ft)		Length: 7 m (23 ft)
Motor: One (1) AVID EVO AFM-240		Motors: Two (2) AVID EVO AFM-240
Inverters: Two (2) Cascadia Motion PM100DX		Inverters: Four (4) Cascadia Motion PM100DX
Vehicle type: Sidecar streamliner motorcycle		Vehicle type: Sidecar streamliner motorcycle

We are literally reinventing the wheel! The non-pneumatic "KiWheel" with rubber grip has the potential to revolutionize land speed racing and increase safety. No more flat tyres! The KiWheel started as Eva's wild idea of making her own tyres, and became an international collaboration!

Three brake chutes with fail-safe pneumatic release, to stop safely.

State-of-the-art inverters from Cascadia Motion turn the DC current from the battery into AC for the motors. The throttle response is smooth as silk and we have 2400 Nm (1800 ft-lb) available from zero to 350+ MPH! CASCADIA MOTION

All single-curved bodywork panels are made of pre-painted sign aluminium from ALRECO, using aircraft tools and techniques. Cheap, quick and lightweight!

The beautiful carbon fiber composite canopy was hand-made by volunteer crew member Steve Lovell.

If you want to compete against internal combustion, you have to follow their rules. A five layer Nomex suit is required, despite there is no fuel onboard... An Arai GP-6 PED helmet protects the most important component: Eva!

The nose and sidecar wheel cover are made of fiberglass-epoxy composite and was built by Jim Corning at NovaKinetics Aerosystems in Flagstaff, Arizona, USA. It was originally made for the KillaJoule, and a copy was made for the Green Envy.

TIG-welded 4130 Chrome-Moly steel frame gives stability and safety, and makes modifications and upgrades really easy. Eva designed the frame in CAD, Mulcahy Engineering precision laser cut all the parts, and Quintin Shamrock and Peter Hopperus at Axis Industrial helped with the fabrication.

The state-of-art permanent magnet AC motors from AVID produce a whopping 1000 (!) HP combined.

The battery pack is built from 14 Ah lithium-ion-nanophosphate battery cells made by A123 Systems. The battery pack consists of a total of 472 cells. It is 400 V and 20 kWh. The batteries are recharged using a 12 kW Manzanita Micro charger, powered from a CumminsOnan quiet hybrid bio-diesel generator.

Even if the salt flats are very flat, the surface is often rough. Good suspension on all wheels is necessary to get good traction and to avoid damage. Öhlins provides the suspension making sure the Green Envy rides like a luxury car!

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Learn more about the Green Envy and Eva Hakansson at **www.GreenEnvyRacing.com**

Get YOUR name on the Green Envy!
It is cheaper than you think - starting at US $50.
Be part of history and see your name fly across the salt flats when we attempt a new world speed record. Go to **www.GreenEnvyRacing.store** or scan the QR code. You can also get your own personalized 3D printed scale model of the KillaJoule or Green Envy, and other perks.

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